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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,386	12/01/2000	Tadakatsu Shimada	PM 275953 SH-0022US	3958

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EXAMINER

HOFFMANN, JOHN M

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 04/28/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/727,386

Applicant(s)

SHIMADA ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 6-8, 10, 13, 14, 16, 19-22 and 24-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9, 11, 12, 15, 17, 18 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I, Species A1, B1, C1, D1 in Paper No. 9 is acknowledged.

Claims 6, 10, 13-14, 16, 19--22, 24-49 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 10. IN paper No. 9, Applicant indicated that the species read on claims 1-5, 7-9 (among others). This is interpreted as indicating that claim 6 reads on one of the non-elected inventions. Since claims 7-8 depend from claim 6, claims 7 and 8 must also read on non-elected species. It is noted that Examiner does not understand claim 6: if one changes "the angle", then that angle is not being "maintained".

Information Disclosure Statement

The information disclosure statement filed 9-7-01 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

The listed patents which have not been initialed were either not submitted or are incomplete. It is noted that the Canadian patent did not contain its drawings. Although

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there were some English abstracts of Japanese patents, the corresponding Japanese patents themselves were not submitted to the Office.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 15 and 23 state that the maintaining is for a "period from reaching a sintering area up to a sintering temperature". This is not understood is seems to mix time (period), distance and temperature. It is unclear what has to reach the sintering area.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 9, and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by SO JP62-153135.

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Looking at the English language abstract and figure 2: device 8 pushes the preform so that the axes are better aligned. The differences in axes position at the bottom of the rod are reduced through the adjusting step.

Claims 2-3, 5, 9 are clearly met.

Claim 11: Merriam-Webster's Collegiate Dictionary 10th ed, 1997 defines "inclinable" as: having a tendency or inclination; also disposed to favor or think well of. The SO reference is inclinable, because it has a tendency or inclination. It is noted that there is no definition of: "able to be inclined" or the like - however if Examiner has missed a passage in the present specification which defines "inclinable" to be limited to something akin to "able to be inclined", it is clear that one can incline the SO rod, merely by bending it. The SO document clearly shows that it can be bent.

Claim 12: The inclination of the rod changes as the rod is rotated. At one instant it has an inclination in one direction. After a $\frac{1}{4}$ rotation, the inclination is in another direction.

Claims 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuchiya 5624474.

Looking to figure 4 and elsewhere: 50 is the support member. 38 is the bar material that is held by the support member. As to the rotating of the bar material, see col. 4, lines 44-60. The radial movement is regulated to near zero- see abstract line 14, and col. 7, line 1.

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Claim 18: it inherent that the bearings suppress any swinging (col. 4, lines 50-54). If the bearings are removed, the bar material and the support member would be free to swing. Alternatively, the plate and/or the load cells are the swing suppressing mechanism (see col. 6, line 62 to col 7, line 5). It is noted that some interpretations might require to have the support member include various features, such as 62, 64, 52, 56 and 57. For example if one considers the 26 to be the suppressing means, then everything in Tsuchiya's figure 4 (except for features 26 and 38) constitute the support member.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Akaike 5401290.

Figure 2 of Akaike shows the bar (9 and 3) being held by a support member - either motor 5 and/or the shaft connecting the motor to the rod. As to the "adjusting", see col.1, lines 38- 54; col. 2, lines 19-22; and col. 3, lines 11- 25. By adjusting the rotational speed, Akaike eliminates vibrations. During vibrations, the axis of the preform would not be aligned with the axis of rotation. When the vibrations cease, the axis would move from its greatest amplitude and remain substantially at center.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akaike 5401290.

Col. 1, lines 21-26 discusses the consolidation (i.e. sintering) of the porous preform. Akaike does not disclose where or when the preform is sintered. Whether the sintering is performed in furnace 1, or transferred to a second furnace, it would have been obvious to keep it in that location for the entire sintering process - because any unnecessary movement of the apparatus might induce detrimental movements or temperature shocks to the operation. And making the apparatus move, would just require extra cost and/or effort to make it movable, to move it, and provide space to move it to. The maintaining step is deemed to only require that the preform stay in the same location from the instant it arrives at the sintering furnace - until it is heated up to a temperature which will sinter it.

Claim 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya.

Tsuchiya does not disclose any sintering of the preform. It would have been obvious to sinter the soot body into glass and then draw it into a fiber, because that is its intended use. Whether the sintering is performed in furnace 40, or transferred to a second furnace, it would have been obvious to keep it in that location for the entire sintering process - because any unnecessary movement of the apparatus might induce detrimental movements or temperature shocks to the operation. And making the

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apparatus move, would just require extra cost and/or effort to make it movable, to move it, and provide space to move it to. The maintaining step is deemed to only require that the preform stay in the same location from the instant it arrives at the sintering furnace - until it is heated up to a temperature which will sinter it.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over SO as applied to claims 1-3 above, and further in view of Chervenak 5558692.

SO does not disclose measuring any distance. Chervenak discloses measuring distances as presently claimed for the advantages of col. 1, lines 58-67 of Chervenak. It would have been obvious to improve the SO method, by using the Chervenak measurement method, for the advantages that Chervenak discloses.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Saito, Baltzer, Chludzinski, Nakahara, Sumitomo (2), Fleming, and Lynch are cited as being of general interest.

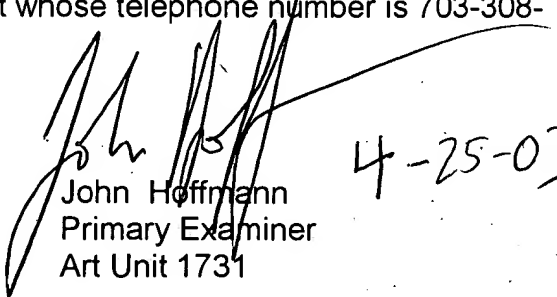
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is 703-308-0469. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 703-308-1164. The fax phone numbers for

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the organization where this application or proceeding is assigned are 703-305-7115 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



John Hoffmann
Primary Examiner
Art Unit 1731

4-25-03

jmh
April 25, 2003